National Institute of Environmental Health Sciences

Impacts of climate change on aeroallergens and allergic respiratory diseases in children in rural areas

Author(s): Beggs PJ
Year: 2010
Journal: International Public Health Journal. 2 (4): 377-383

Abstract:

Impacts of climate change on aeroallergens and allergic respiratory diseases have been assessed and reviewed previously, but this previousr esearch has not focussed on such impacts in children in rural areas. The aim of this article is to provide an up-to-date, international, and holistic review of this topic. The article includes, for the first time, an assessment of changes in two extreme events, thunderstorms and tropical cyclones, and the resulting impacts on aeroallergens and allergic respiratory diseases in children in rural areas. The impacts of climate change, and in particular increases in atmospheric carbon dioxide concentration and temperature, may include for some plant species increases in pollen production, atmospheric pollen concentration, and pollen allergenicity, an earlier start to the pollen season, and changes to plant and pollen spatial distribution, such as poleward and upward range shifts. Climate change may also have an impact on allergic respiratory diseases in children in rural areas through impacts of extreme events on aeroallergens, including ‘thunderstorm asthma’ and ‘tropical cyclones, flooding and indoor mould’. Both mitigation and adaptation responses to these impacts are required. Examples of adaptation include enhanced aeroallergen monitoring and forecasting, tighter management of allergenic plant species, and continued research in particular aspects of this topic.

Source: https://www.novapublishers.com/catalog/product_info.php?products_idEuro Surveillance (Bulletin Europeen Sur Les Maladies Transmissibles; European Communicable Disease Bulletin)22886

Resource Description

Communication: ☑

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☑

audience to whom the resource is directed

Policymaker

Exposure : ☑

weather or climate related pathway by which climate change affects health

Air Pollution, Extreme Weather Event, Precipitation

Air Pollution: Allergens

Extreme Weather Event: Flooding, Hurricanes/Cyclones

Geographic Feature: ☒

resource focuses on specific type of geography

Rural

Geographic Location: ☒

resource focuses on specific location

Global or Unspecified

Health Impact: ☒

specification of health effect or disease related to climate change exposure

Respiratory Effect

Respiratory Effect: Asthma, Upper Respiratory Allergy

Intervention: ☒

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation: ☒

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☒

populations at particular risk or vulnerability to climate change impacts

Children

Resource Type: ☒

format or standard characteristic of resource

Review

Timescale: ☒

time period studied

Time Scale Unspecified